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## SALUTING THE CITRUS SEASON

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\*\* JAN 12 1935 \*\*

U. S. Department of Agriculture

A radio interview between W. R. Beattie, Bureau of Plant Industry, and Miss Ruth Van Deman, Bureau of Home Economics, broadcast Monday, December 17, 1934, in the Department of Agriculture period, National Farm and Home Hour, by NBC and a network of 50 associate radio stations.

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MR. SALISBURY: For some time I have felt the urge to commit one of these Farm and Home Hour salutes to the favorite fruits of the season. And today the urge has just got the best of me. Not only of me, but of our favorite friends and standbye, Miss Van Deman and Mr. Beattie. Now I gracefully retire from center stage and leave it to them to carry on in the full tradition of our strawberry and blueberry and cherry festivals. But first, perhaps, they had better tell us what fruit inspires the celebration of the day. How about it, Mr. Beattie?

MR. BEATTIE: What fruit would naturally come into the mind of anyone of my generation at this time of the year? I can hear a mighty shout rolling up from the hills and the valleys of this broad continent -- The Christmas fruit is ---- ORANGES. Yes, sir, why I was about ready to cast my first vote before I knew that oranges could be had at any other time than Christmas.

An orange in the toe of a Christmas stocking, that was my orange for the year. Is that the way it was with you, Miss Van Deman?

MISS VAN DEMAN: No, by the time I came along they were a little more plentiful. Santa Claus always brought an orange tree full of big golden fruit and left it in some mysterious corner of our house. The oranges used to come out one by one every day from Christmas until well into the new year. One day when I was naughty and my Mother put me in the little closet under the stairs I discovered exactly where the orange tree grew.

MR. BEATTIE: Those big golden fruits were almost worth their weight in gold. about the time you found your orange tree in the closet, the big groves of navel oranges in California were almost in full bearing.

MISS VAN DEMAN: That orange tree you and I paid our respects to in the greehouse last week is one of the first navel orange trees frown in this country.

MR. BEATTIE: Yes, that's a very historic tree. Back in 1870 the late William Saunders who was then in charge of the gardens of the Department of Agriculture imported 12 trees of the Bahia seedless orange from Brazil. Buds from these trees were propagated in one of the Department greenhouses on orange stocks grown for the purpose. Two of these young budded trees were sent to Mrs. L. C. Tibbets at Riverside, California, and that was the start of the great navel orange industry of the Golden State.

MISS VAN DEMAN: But I understand work on the navel orange didn't stop there.

MR. BEATTIE: By no means. For the past 25 years, A. D. Shamel, Carl Pomeroy and others have gone about the orange groves of California selecting the best trees from which to take buds for propagation.

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MISS VAN DEMAN: Oh, I see. Since the Washington navel orange has no seeds, it has to be propagated entirely by buds.

MR. BEATTIE: As a matter of fact, we propagate all the fine varieties of oranges by budding just as we do with peaches and apples. This is a big story in itself - what the Department of Agriculture is doing in selecting and improving the varieties of oranges by bud selection. And of course this work isn't confine to California. The Department is doing similar research in Florida and all the other States where citrus fruits are grown on a commercial scale.

MISS VAN DEMAN: By the way, what about the effect of the freeze last week in the Florida orange crop?

MR. BEATTIE: Too early to say for certain yet. We know already that citrus fruits are not so hard hit as the early vegetables. There's going to be no shortage of oranges this year.

MISS VAN DEMAN: The prediction was for the biggest crop on record, wasn't it

MR. BEATTIE: Yes. The crop estimators thought there would be about 57 million boxes when they made their November report.

MISS VAN DEMAN: Let's see, how many oranges are there in a box?

MR. BEATTIE: Oh, anywhere from 126 to 216.

MISS VAN DEMAN: Well, just for the fun of it, let's take 176 for an average You see I want to figure out what the total would be in individual oranges, not boxes.

MR. BEATTIE: Oh, I beat you to it. Here are the figures. Don't let them scare you. 10,032,000,000 oranges, or about 80 oranges a piece for every man, woman, and child in the United States. Now figure that out in vitamins if you can.

MISS VAN DEMAN: Wish I could, but vitamins and higher mathematics don't mix very well. But we do know that oranges and all citrus fruits stand at the top of the list of foods rich in vitamin C.

MR. BEATTIE: Let me see, what is it vitamin C does for us? I have a hard time keeping these different vitamins stright in my mind.

MISS VAN DEMAN: Vitamin C is the one that helps to keep the teeth and gums healthy.

MR. BEATTIE: Can we store up this vitamin C in our bodies?

We have to get a new supply almost every day. You've noticed people with red swollen gums, have't you?

MR. BEATTIE: Yes, is that a sign that they're not getting enough vitamin C?

MISS VAN DEMAN: Yes, red swollen gums and pyhorrea are signs that a person probably hasn't been getting enough vitamin C in his food for a long time - months or maybe years. As I said, oranges aren't the only source of vitamin C. But they

are one of the richest. Lemons and grapefruit and all the citrus fruits are outstanding. So are tomatoes and cabbage among the vegetables. Another thing you have to remember about vitamin C is the way heat and air affect it. It is easily destroyed especially by a combination of the two. That's why the nutrition people recommend that we eat a steady supply of fresh fruits and vegetables, and some of them raw.

MR. BEATTIE: Well, that's certainly where orange juice comes in. And haven' oranges some other food values beside vitamin C

MISS VAN DEMAN: Oh, yes. They are a good source of vitamin B and calcium. They're also one of the so-called alkaline or base-forming foods.

MR. BEATTIE: I wish you'd tell me just what you mean by that. Do oranges correct an acid condition in the body?

MISS VAN DEMAN: Well, it's this way. As your body digests certain goods, acid products remain - the nutrition chemists call these acid end products. To join up with these acid end products and neutralize them and make them harmless, your body needs a good supply of alkaline elements. The body needs to have at all times an alkaline reserve. Oranges happen to be one of the foods rich in these alkaline elements. That's how all this idea got started that they correct acid condition in the body.

So much for our sermon on nutrition. I'd like to get your advice on buying oranges. What about these russet oranges, are they just as good as the bright yellow ones:

MR. BEATTIE: Yes, to all practical purposes. The russet skin is caused by spraying, and by the russet mite, an insect that sucks the juice out of the orange skin and makes it discolor and dry out.

MISS VAN DEMAN: I've heard people say that russet oranges are sweeter than others.

MR. BEATTIE: There's very little to that. Sweetness in an orange depends on other things more important than the color of the skin. But speaking of color of an orange skin did you know, Miss Van Deman, that an orange can be fully ripe and still have a skin as green as grass?

MISS VAN DEMAN: No, that is news. Is that at the bottom of this ethylene treatment.

MR. BEATTIE: The scientists have been working for a long time on this question of the color of oranges. Naturally people want to buy oranges that are orange color. So the chemists and the horticulturists got together and tried putting the oranges in special rooms where they could control the temperature and the humidity. In addition they found that a treatment with certain gases, especially ethylene gas, will bring out the bright orange color.

MISS VAN DEMAN: This gas treatment is only skin deep, isn't it? Doesn't do anything to the inside of the orange, I take it.

MR. BEATTIE: Not so far as anybody can discover, and it's certainly a great boon to the growers, especially of Valencia oranges. For if Valencias stay on the

trees too long, they'll change color first from green to yellow then back to green.

MISS VAN DEMAN: That's good enough for a believe-it-or-not story. Now what about the smoothness of skin of an orange? Is that a good guide for the consumer?

MR. BEATTIE: Well it depends on what variety of orange you're buying. The King orange, for example, has a very rough thick skin, but a King orange is sweet and full of juice. On the other hand, the Valencia is a smooth-skinned fruit but if it hangs on the tree too long it may become light and pithy.

MISS VAN DEMAN: Then I take it, Mr. Beattie, that weight means more than either color or smoothness of the skin.

MR. BEATTIE: Yes, it does.

MISS VAN DEMAN: Another thing that interests me in this new way of selling oranges in mesh bags.

MR. BEATTIE: A great many oranges are being shipped and sold in mesh bags. After the oranges are graded, they are packed in the bags carrying 5, 8, or 10 pounds of fruit. These bags are then loaded into freight cars with plenty of soft bedding to keep them from bruising.

Another recent development in marketing oranges is to transport them by truck direct from the grove to roadside and other markets.

MISS VAN DEMAN: Yes, it makes me feel like a millionaire when I go to the market and buy a bushel basket of oranges.

MR. BEATTIE: But remember when you buy oranges in bushel baskets, you generally get the run of the orchard. Those oranges as a rule don't go through the packing house and the grader, so they're likely to be all sizes. But a bushel of any size oranges, large or small, will fill a good many glasses with orange juice.

MR. SALISBURY: Now look here. If you begin to pass around orange juice, Mr. Beattie, don't forget me.

I might say that I understand there's a great deal of controversy over the effects of the system of selling oranges to truckers. I know Miss Van Deman and Mr. Beattie have no thought of giving aid or comfort to any side in this controvers;

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